APPARATUS FOR GENERATING ULTRAVIOLET RADIATION AND OZONE BY USING MICROWAVE

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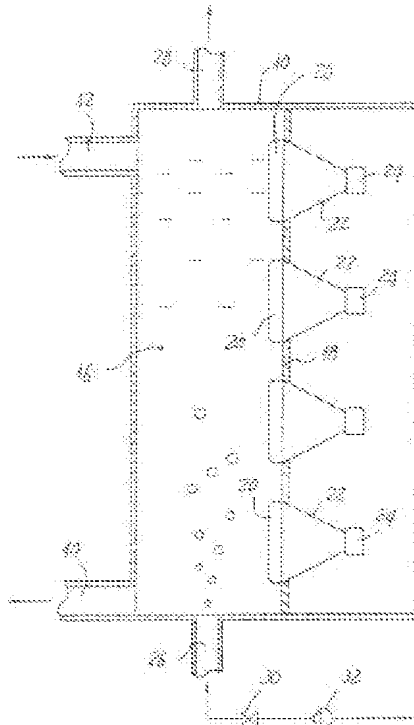**Also published as:**

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Abstract of corresponding document: **WO 0224236 (A1)**

Disclosed is an apparatus for generating ultraviolet rays and ozone using microwaves to sterilize water in a swimming pool or potable liquids such as purified water, milk and juice and to eliminate impure organic matters contained in the water. The apparatus includes a housing (10) having an upper liquid inlet (12) and a lower liquid outlet (14), and defining a sterilization chamber (16) therein. The housing (10) includes therein a transparent partition wall (18), which is spaced from a side vertical wall of the housing (10) to serve as a side wall of the sterilization chamber (16). The transparent partition wall (18) is provided with several electrodeless ultraviolet lamps (20). Wave guides (22) are attached to the back faces of the electrodeless ultraviolet lamps (20), respectively, which are widened toward the ultraviolet lamps (20). Microwave generator units (24) are attached to back ends of the wave guides (22), respectively. The sterilization chamber (16) is provided at a bottom thereof with an air inlet pipe (26) and at a top thereof with an air outlet pipe (28).